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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,214

07/31/2006

Joachim Hahn

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25006

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EXAMINER

ESHETE, ZELALEM

ART UNIT

PAPER NUMBER

3748

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/568,214	HAHN ET AL.	
	Examiner	Art Unit	
	Zelalem Eshete	3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 63-88 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 79-88 is/are allowed.
- 6) ☒ Claim(s) 63-78 is/are rejected.
- 7) ☒ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/20/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

This Office action is in response to the preliminary amendment filed on 2/13/2006.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 63,64,66,70,72,78 are rejected under 35 U.S.C. 102(b) as being anticipated by Hare (5,103,779).

Regarding claim 63: Hare discloses a piston combustion engine comprising: gas intake valves and gas exhaust valves; the gas intake valves and gas exhaust valves positioned over at least a cam shaft (figures 13,13A); a cam on said at least one cam shaft has a base circular outline and the base circular outline has a radially extending cam portion (170); a contoured body with an auxiliary cam structure having a resting position and an active position, the contoured body in the resting position constantly extends beyond the base circle outline and urges a power transfer member radially into the base circle outline (figure 13), and in the active position permanent disengagement is blocked (figure 13A).

Regarding claim 64: Hare discloses the contoured body in the active position has an exhaust gas guide (column 4, lines 1 to 10).

Regarding claim 66: Hare discloses the auxiliary cam structure is positioned in proximity to the radially extending cam portion in the base circular outline of the cam (figure 13A).

Regarding claim 78: Hare discloses during an engine braking of the contoured body operation of an exhaust valve is activated (column 4, lines 1 to 10).

Regarding claim 70: Hare discloses the auxiliary cam outline extends in the active position above a flank of the radially extending cam portion (figure 13A).

Regarding claim 72: Hare discloses a piston combustion engine comprising: gas intake valves and gas exhaust valves; said gas intake valves and gas exhaust valves positioned over at least a cam shaft (see figures 13,13A); a cam on said at least one cam shaft has a base circular outline and the base circular outline has a radially

extending cam portion (146); and a contour guide or a ventilation guide device eccentrically positioned relative to a cam shaft center (figures 13,13A).

3. Claims 63,64,66,72 are rejected under 35 U.S.C. 102(b) as being anticipated by Kriiger (5,404,770).

Regarding claim 63: Kriiger discloses a piston combustion engine comprising: gas intake valves and gas exhaust valves; the gas intake valves and gas exhaust valves positioned over at least a cam shaft (figure 3); a cam on said at least one cam shaft has a base circular outline and the base circular outline has a radially extending cam portion (5); a contoured body with an auxiliary cam structure having a resting position and an active position, the contoured body in the resting position constantly extends beyond the base circle outline and urges a power transfer member radially into the base circle outline, and in the active position permanent disengagement is blocked (figures 2,3).

Regarding claim 64: Kriiger discloses the contoured body in the active position has an exhaust gas guide (column 2, lines 53 to 60).

Regarding claim 66: Kriiger discloses the auxiliary cam structure is positioned in proximity to the radially extending cam portion in the base circular outline of the cam (figure 2).

Regarding claim 72: Kriiger discloses a piston combustion engine comprising: gas intake valves and gas exhaust valves; said gas intake valves and gas exhaust valves positioned over at least a cam shaft (see figure 3); a cam on said at least one cam shaft has a base circular outline and the base circular outline has a radially extending cam portion (5); and a contour guide or a ventilation guide device eccentrically positioned relative to a cam shaft center (figures 2,3).

4. Claims 63-75,77 rejected under 35 U.S.C. 102(b) as being anticipated by Nagai et al. (5,505,168).

Regarding claim 63: Nagai discloses a piston combustion engine comprising: gas intake valves and gas exhaust valves; the gas intake valves and gas exhaust valves positioned over at least a cam shaft (figure 1); a cam on said at least one cam shaft has a base circular outline and the base circular outline has a radially extending cam portion (10a); a contoured body with an auxiliary cam structure having a resting position and an active position, the contoured body in the resting position constantly extends beyond the base circle outline and urges a power transfer member radially into the base circle outline (figure 3), and in the active position permanent disengagement is blocked (figure 5).

Regarding claim 64: Nagai discloses the contoured body in the active position has an exhaust gas guide (column 2, lines 35 to 40).

Regarding claim 65: Nagai discloses the contoured body is brought into the active position with the auxiliary cam structure in a flank of the cam structure with a servo unit (figures 1,5).

Regarding claim 66: Nagai discloses the auxiliary cam structure is positioned in proximity to the radially extending cam portion in the base circular outline of the cam (figure 5).

Regarding claim 67: Nagai discloses a piston combustion engine comprising: gas intake valves and gas exhaust valves; said gas intake valves and gas exhaust valves positioned over at least a cam shaft (figure 1); a cam on said at least one cam shaft has a base circular outline and the base circular outline has a radially extending cam portion (10a); a contoured body is brought into an active position with an auxiliary cam structure in a cam shaft with a servo unit applying an adjustable force (see figures 1,5).

Regarding claim 68: Nagai discloses the servo motor uses a hydraulic apparatus to generate the force (figure 1).

Regarding claim 69: Nagai discloses the servo motor comprises a spring (14).

Regarding claim 77: Nagai discloses operation of the contoured body regulates the operation of an internal exhaust gas guide (column 2, lines 35 to 40).

Regarding claim 70: Nagai discloses the auxiliary cam outline extends in the active position above a flank of the radially extending cam portion (figure 5).

Regarding claim 71: Nagai discloses the auxiliary cam outline in a resting position extends above a flank of the radially extending cam portion (figure 3).

Regarding claim 72: Nagai discloses a piston combustion engine comprising: gas intake valves and gas exhaust valves; said gas intake valves and gas exhaust valves positioned over at least a cam shaft (see figure 1); a cam on said at least one cam shaft has a base circular outline and the base circular outline has a radially extending cam portion (10a); and a contour guide or a ventilation guide device eccentrically positioned relative to a cam shaft center (figure 5).

Regarding claim 73: Nagai discloses a piston combustion engine comprising: gas intake valves and gas exhaust valves; said gas intake valves and gas exhaust valves

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positioned over at least a cam shaft (figure 1); a cam on said at least one cam shaft has a base circular outline (figure 3) and the base circular outline has a radially extending cam portion (10a); and a servo unit connection for bringing a contoured body into an active position with a mechanical coupling element for the radial activation and straight line displacement positioning of the contoured body (30).

Regarding claim 74: Nagai discloses the contoured body in a resting position takes the active position (figure 5).

Regarding claim 75: Nagai discloses the coupling element is a coupling pin (22).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 76 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai et al. (5,505,168).

Nagai discloses the claimed invention except for duplication of auxiliary cam/couplings. It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate such depending on plurality of cylinders in the engine, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Allowable Subject Matter

7. Claims 79-88 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zelalem Eshete whose telephone number is (571) 272-4860. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Zelalem Eshete/
Primary Examiner, Art Unit 3748